



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/542,968

04/18/2006

Andreas Zeller

AP 10614

1979

52203 7590 12/30/2008

CONTINENTAL TEVES, INC.  
ONE CONTINENTAL DRIVE  
AUBURN HILLLS, MI 48326-1581

EXAMINER

KONG, SZE-HON

ART UNIT

PAPER NUMBER

3661

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/542,968	ZELLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	SZE-HON KONG	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

The term "according" (paragraph 0001, line 4) should be removed.

The terms "pressure increase times" and "pressure reduction times" (paragraph 0015, line 1) is understood to be an informalities because the term "times" is not clear and that it is understood that it should be read "pressure increase time" and "pressure reduction time".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "pressure increase times" and "pressure reduction times" (paragraph 0015, line 1), is not clear and render the claim to be indefinite. It is by the Examiner's understanding that it could be a typo regarding the term "times" for both terms that should be read as "time" for referring the time of the pressure

Art Unit: 3661

increases and reduces and not the number of “times” that pressure increases and reduces.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koibuchi (6,405,116) and Jonner et al. (4,852,009).

For claims 6, 7 and 10, Koibuchi discloses a system for improve driving stability with hydraulic pressure in the wheel cylinder is adjusted to control the brake actuator for the front and rear wheels and the skid control computer detect the wheel speeds of the front and rear wheels to calculate the slip rate of the wheels and estimate the friction coefficient  $\mu$  of a road surface from the slip rate, that is detecting the vehicle is in a ‘ $\mu$ -split’ situation (Col. 4, lines 11-40); the skid control computer calculates a brake distribution ratio between the front and rear wheels where if a front-wheel brake

Art Unit: 3661

assignments, pressure modulation is determined, a rear-wheel brake assignment is also automatically determined and that part of the brake torque to be generated in the vehicle as a whole is generated by the front wheel, the brake torque to be generated by the rear wheel is reduced accordingly (Col. 6, lines 15-36).

Koibuchi does not explicitly disclose yaw torque detection, but it would have been obvious one of ordinary skill in the art that the yaw rate sensor taught by Koibuchi can detect the yaw torque of a vehicle if needed, using known mathematical equations. Jonner discloses yaw torque detects and determining if one of the front wheels has a tendency to block, that is under brake control influence the rear wheel braking pressure (Col. 2, lines 52-60)

For claim 8, Koibuchi discloses determining if the rear-wheel brake torque to be generated is greater than a max value, power train control assists the pressure modulation on the rear axle, and pressure modulation can be reduced when the brake torque is less than the value, differently effects the adaptation of the pressure modulation (Col. 7, lines 17-35).

Koibuchi does not specifically disclose differently weighting pressure increase time and reduction time of the axle but would be obvious to one of ordinary skill in the art that the threshold value taught by Koibuchi determines the time for increase and decrease the pressure on the rear wheels. Jonner discloses upon instability of operation of one of the front wheels is determined, maintain the pressure at the rear wheel brakes until a tendency to block on the wheel is determined and phase of constant brake

Art Unit: 3661

pressure permitting slight decrease of braking pressure applied to the rear wheel brakes for a predetermined time interval (Col. 3, lines 3-27). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the invention of Koibuchi to control braking pressure of the wheel brakes timely, taught by Jonner to prevent wheels lock up and minimize slip effectively control vehicle brakes for stability.

For claim 9, Koibuchi discloses parallel control of a power train output control, an assisted brake control that can be performed together with rear-wheel brake control (Fig. 2, col. 6, lines 50-62).

Koibuchi does not specifically disclose ABS control functions and the control of the rear axle are parallel active so that pressure is reduced on both rear wheels when an unstable wheel behavior is imminent on at least one rear wheel. ABS controls are well known to active when an unstable wheel is imminent to prevent lock on wheels. Jonner discloses the rear wheels can be influenced by the instability of one of the front wheels and ABS control can provide a phase of constant brake pressure to decrease braking pressure to the rear wheel brakes and that the braking pressure on the rear wheels are controlled by the ABS controller (Col. 3, lines 3-27). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the invention of Koibuchi to apply ABS control to the wheels to decrease braking pressure of the wheel brakes, taught by Jonner to prevent wheels lock up and reduces slip during drive instability.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(6,595,602) Jokic discloses a vehicle control of a locked drive system, discussing pressure modulation of the front wheels influence toward the rear wheels and ABS stability control.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SZE-HON KONG whose telephone number is (571)270-1503. The examiner can normally be reached on 7:30AM-5PM Mon-Fri, Alt. Fri. Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/542,968  
Art Unit: 3661

Page 7

12/21/08

/SIZE-HON KONG/  
Examiner, Art Unit 3661  
/KHOI TRAN/  
Supervisory Patent Examiner, Art Unit 3664